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| 09/774,631 | 02/01/2001 | Hirotaka Ueno | 108075-00033 | 3059 |

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| EXAMINER |
|---|
| PATEL, NITIN C |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2116 | 6 |

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**.        2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _3-12_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _3-6,8,9,11 and 12_ is/are rejected.

7)☒ Claim(s) _7 and 10_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All  b)☐ Some *  c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

## DETAILED ACTION

1.      This is in responsive to amendment filed on May 17, 2004.

2.      Claims 1 – 2 have been canceled.

3.      Claims 3 – 12 are presented for the examination.

### *Claim Rejections - 35 USC § 103*

4.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.      Claims 3 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marbot, US

Patent 5,268,937 [cited in previous office action], and further in view of Ducaroir et al.

[hereinafter as Ducaroir], US Patent 6,061,747.

6.      As to claims 4, and 12, Marbot teaches system and method for digital transmission with

determining a transfer [transmission] speed of an encoded data signal [TS, transmission signal]

including a clock signal [CL, clock] and a data signal [DS, data] [col. 1, lines 30 – 36, col. 4,

lines 30 - 41] with steps of decoding [decoding is inherent to decoder] the encoded data signal

[TS] to generate [to restore] a decoded data [RD] signal and write clock [CL] signal [col. 4, lines

43 – 57, fig. 1]; storing [memorizing] [col. 8, lines 49 – 51] the decoded signal [RD] in a

memory [registers of buffer] in accordance with the write clock signal [CL][col. 8, lines 37 – 51,

col. 11, lines 36 – 37, col. 13, lines 61 – 65, fig. 6]; determining a data transfer speed

[transmission speed] of the encoded data signal [TS] using the write clock [CL] signal [col. 1,

lines 48 – 56, col. 3, lines 32 – 38, col. 10, lines 1 – 33, fig. 5]; generating a read clock signal

[CL] having a frequency corresponding to the determined data transfer speed [col. 10, lines 1 –

33]; reading the decoded data signal [RD] stored in the memory [register] in accordance with the

read signal [CL][col. 11, lines 19 – 50].

However, Marbot does not teach an encoder in receiver [13] section for encoding the read

decoded data signal and the read clock signal to generate an encoded data signal. In summary, he

teaches an encoder, and buffer in transmitter and decoder, buffer, and clock recuperator in

receiving section but does not teach transceiver which has both transmitter and receiver section.

Ducaroir teaches a system and method encoded data transfer to-and-from with a TX/RX

core [510, fig.7] with encoded data stream incoming to TX/RX and input to receiver [710] to a

receive buffer [740] and transferred to decoder [750, deserializer750] and data/clk recovery logic

[760] which allows RX clock generator [725] to recreate [regenerate] true timing signal [receive

clock signal] from the data [clock is recovered from the data themselves] and high speed serial

connection is not required to transmit a separate clock [col. 8, lines 29 – 46] and transmitter

section with transmit buffer [730] to transmit encoded data from encoder [720, serializer] with

read clock [transmit clock generated by TX clock generator [715]] for clocking the serial data at

transmission speed [col. 8, lines 13 – 27, fig. 7] which provide a desirable characteristic

including parity for error checking, DC balance, and extra characters that can be used for

controls, such as start, end, and error [col. 6, lines 49 – 56].

It would have been an obvious to one of ordinary skill in the art, having the teachings of

Mabot and Ducaroir before him at the time of invention was made, to modify the system and

method for digital transmission with encoding data in association with clock and synchronization

information to form serial transmission signal, and in reception, recovering the clock and

synchronization information contained in transmission signal to determine transmission speed, and decoding the transmission signal to reconstitute the original data by Marbot to include encoded data transfer to-and-from with transmitter section with transmit buffer [730] to transmit encoded data from encoder [720, serializer] with read clock [transmit clock generated by TX clock generator [715]] for clocking the serial data at transmission speed [col. 8, lines 13 – 27, fig. 7] and reception [TX/RX core, fig. 7] will not require a high speed serial connection to transmit a separate clock [col. 8, lines 29 – 46] and to provide a desirable characteristic including parity for error checking, DC balance, and extra characters that can be used for controls, such as start, end, and error [col. 6, lines 49 – 56] with a system capable of serially transmitting and receiving video, audio and control data to and from one or more monitors while simultaneously serially transmitting control data from one or more sensors operably coupled to monitor(s) [col. 8, lines 49 – 53].

7.    As to claim 3, Marbot discloses determination of transmission speed on the basis of information received [col. 3, lines 35 – 37] with counter [50], comparator [49], and intermediate clock signal therefore, he teaches the step to measure a time required to store predetermined number of bits of encoded data too [col. 3, lines 35 – 37, col. 10, lines 15, and 24 – 27, fig. 5].

8.    As to claim 5, Marbot discloses determination of transmission speed on the basis of information received [col. 3, lines 35 – 37] with counter [50], comparator [49], and intermediate clock signal therefore, he teaches the step to measure a time required to store predetermined number of bits of encoded data by counting pulses of reference clock too [col. 3, lines 35 – 37, col. 10, lines 15, and 24 – 27, fig. 5].

9.      As to claim 6, Marbot discloses determination of transmission speed on the basis of

information received [col. 3, lines 35 – 37] with counter [50], therefore, he teaches the step to

measure a time includes counting of pulses too [col. 3, lines 35 – 37, col. 10, lines 15, and 24 –

27, fig. 5].

10.     As to claim 8, Ducaroir teaches an encoding of data signal includes a strobe signal and

data signal, which are encoded in accordance with a Data-Strobe Link coding scheme [encoding

is performed to provide a desirable characteristics including an extra characters to be used for

controls, such as start, end, and error][col. 6, lines 49 – 56].

11.     As to claim 11, Marbot discloses determination of transmission speed on the basis of

information received [col. 3, lines 35 – 37] with comparator [49], and timer [counter 50] to count

pulses, therefore, he teaches the step to detect the condition by using comparison result in

accordance with write clock too [col. 3, lines 35 – 37, col. 10, lines 15, and 24 – 27, fig. 5].

12.     As to claim 12, Ducaroir discloses the timing clock generator [705] to provide a reference

clock signal to the transmitter [700] to clock signal generator circuit [715, TXclock generator]

for clocking the serial data at the transmission speed of high speed serial connection [col. 8, lines

19 – 23] therefore he teaches to select [control signal to select] a read clock signal [TX clock]

corresponds to transmission speed too.

### *Allowable Subject Matter*

13.     Claims 7, and 10 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

### *Conclusion*

14.    Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action.  Accordingly, **THIS ACTION IS MADE FINAL.**  See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action.  In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nitin C. Patel whose telephone number is 703-305-3994.  The

examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynne H. Brown can be reached on 703-308-1159.  The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Nitin C. Patel

June 21, 2004

LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
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